WHAT IS CLAIMED IS:

1. A tripod type constant velocity joint comprising

a hollow cylindrical housing fixed to the end of a first rotary shaft and formed with axially extending recessed grooves opened at one axial end and located at circumferentially trisectional positions on the inner peripheral surface,

a tripod consisting of a boss fixed to the end of a second rotary shaft, and end-spherical trunnion journals radially projecting from circumferentially trisectional positions on the boss,

roller assemblies each consisting of an inner roller swingably fitted at the inner peripheral surface thereof on the spherical outer peripheral surface of the trunnion journal, and an outer roller supported for rotation and axial movement on the outer peripheral surface of the inner roller through needle rollers, wherein

the outer rollers are received in the recessed grooves in the housing and are rollable axially of the housing, each recessed groove consists of guide surfaces contacting the outer peripheral surface of the outer roller and subjected to loads, and guide shoulder surfaces for guiding the outer roller axially of the housing, and only side of the outer diameter of said boss associated with the end of the second rotary shaft is heavily chamfered.

2. A tripod type constant velocity joint as set forth in Claim 1, wherein flat surfaces or dents are formed at load-imposed positions on the spherical outer peripheral surface of the

trunnion journal.

3. A tripod type constant velocity joint as set forth in Claim 1, wherein at least one end of the inner peripheral surface of the outer roller is integrally provided with a needle roller retainer.

4. A tripod type constant velocity joint as set forth in Claim 1, wherein at least one end of the outer peripheral surface of the inner roller is integrally provided with a needle roller retainer.

5. A tripod type constant velocity joint as set forth in Claim 1, wherein the inner diameter of the cylindrical inner peripheral surface of the outer roller at the joint inner diameter side end is smaller than the outer diameter of the inner roller.

6. A tripod type constant velocity joint as set forth in Claim 1, wherein the outer diameter of the cylindrical outer peripheral surface of the inner roller at the joint outer diameter side end is smaller than the inner diameter of the outer roller.

7. A tripod type constant velocity joint comprising

a hollow cylindrical housing fixed to the end of a first rotary shaft and formed with axially extending recessed grooves opened at one axial end and located at circumferentially trisectional positions on the inner peripheral surface,

a tripod consisting of a boss fixed to the end of a second rotary shaft, and end-spherical trunnion journals radially projecting from circumferentially trisectional positions on

the boss,

roller assemblies each consisting of an inner roller swingably fitted at the inner peripheral surface thereof on the spherical outer peripheral surface of the trunnion journal, and an outer roller supported for rotation and axial movement on the outer peripheral surface of the inner roller through needle rollers, wherein

the outer rollers are received in the recessed grooves in the housing and are rollable axially of the housing, each recessed groove consists of guide surfaces contacting the outer peripheral surface of the outer roller and subjected to loads and guide shoulder surfaces for guiding the outer roller axially of the housing, and a relief is locally formed along the forged parting line of the trunnion journal, thereby receding the protuberance of the parting line inwardly from the outer peripheral surface of the trunnion journal.

8. A tripod type constant velocity joint as set forth in Claim 7, wherein the outer diameter of the boss of the tripod at one axial end thereof is chamfered more heavily than at the other end thereof, thereby preventing the roller assembly from interfering with said boss when the roller assembly is tilted for assemblage to the trunnion journal.

9. A tripod type constant velocity joint as set forth in Claim 7, wherein with θ being an angle at which the roller assembly is tilted for assemblage to the trunnion journal, the maximum diameter of the trunnion journal including the forged parting line projected in the direction of angle θ is not more than

the inner diameter on the inner roller insertion side.

10. A tripod type constant velocity joint as set forth in Claim 7, characterized in that the setting is such that with θ_1 being the angle at which the roller assembly is about to separate from the trunnion journal, the roller assembly interferes with the rotary shaft when it is tilted up to an angle θ_2 ($\theta_2 < \theta_1$) after the rotary shaft has been mounted in the tripod kit.

11. A tripod type constant velocity joint comprising

a hollow cylindrical housing fixed to the end of a first rotary shaft and formed at the inner peripheral surface thereof with axially extending recessed grooves opened at one axial end and located at circumferentially trisectional positions on the inner peripheral surface,

a tripod consisting of a boss fixed to the end of a second rotary shaft, and end-spherical trunnion journals radially projecting from circumferentially trisectional positions on the boss,

roller assemblies each consisting of an inner roller swingably fitted at the inner peripheral surface thereof on the spherical outer peripheral surface of the trunnion journal, and an outer roller supported for rotation and axial movement on the outer periphery of the inner roller through needle rollers, wherein

the outer rollers are received in the recessed grooves in the housing and are rollable axially of the housing, each recessed groove consists of guide surfaces contacting the outer peripheral surface of the outer roller and subjected to loads,

and guide shoulder surfaces for guiding the outer roller axially of the housing, it being arranged that when the roller assembly is to be assembled to the trunnion journal, it is done so by tilting the roller assembly axially of the joint, the root of the tripod journal being of non-circular cross-section in which the diameter measured circumferentially of the joint is larger than the diameter measured axially of the joint.

12. A tripod type constant velocity joint as set forth in Claim 11, wherein the outer diameter of the boss of the tripod on the second rotary shaft end side is heavily chamfered.

13. A tripod type constant velocity joint as set forth in Claim 11, wherein a relief is locally formed along the forged parting line of the trunnion journal, so that the height of the parting line is not more than the spherical surface diameter.

14. A tripod type constant velocity joint as set forth in Claim 11, wherein the cross-section of the trunnion journal in the torque load region is substantially double spherical.

15. A tripod type constant velocity joint as set forth in Claim 14, wherein the radius R of the double spherical surface of the trunnion journal is set in the range $r/2 < R < r$ where r is the radius of curvature of the spherical inner peripheral surface of the inner roller.

16. A tripod type constant velocity joint as set forth in Claim 11, wherein the setting is such that with θ_1 being the angle at which the roller assembly is about to separate from the trunnion journal, the roller assembly interferes with the rotary shaft when it is tilted up to an angle θ_2 ($\theta_2 < \theta_1$) after

the rotary shaft has been mounted in the tripod kit.

17. A tripod type constant velocity joint as set forth in Claim 11, wherein at least one end of the inner peripheral surface of the outer roller is integrally formed with a needle roller retainer.

18. A tripod type constant velocity joint as set forth in Claim 17, wherein the inner diameter of the cylindrical inner peripheral surface of the outer roller at the joint inner diameter side end is smaller than the outer diameter of the inner roller.

19. A tripod type constant velocity joint as set forth in Claim 11, wherein at least one end of the outer peripheral surface of the inner roller is integrally formed with a needle roller retainer.

20. A tripod type constant velocity joint as set forth in Claim 19, wherein the outer diameter of the cylindrical outer peripheral surface of the inner roller at the joint outer diameter side end is larger than the inner diameter of the outer roller.